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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 924,872	08 09 2001	Hiroyuki Nagasawa	Q65781	3695

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EXAMINER	
MULPURI, SAVITRI	
ART UNIT	PAPER NUMBER
2812	

DATE MAILED: 05/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/924,872	Nagasawa
Examiner	**Art Unit**
Savitri Mulpuri	2812

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) X Responsive to communication(s) filed on *Feb 12, 2003*.

2a) This action is **FINAL**. 2b) X This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) X Claim(s) *1-19* is/are pending in the application.

4a) Of the above, claim(s) *1-13 and 17-19* is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) X Claim(s) *14-16* is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and or 121.

Attachment(s)

1	Notice of References Cited, PTO-892	4	Interview Summary, PTO-413, Paper No. s
2	Notice of Draftsperson's Patent Drawing Review, PTO-948	5	Notice of Informal Patent Application, PTO-152
3	Information Disclosure Statement s), PTO-1449, Paper No. s	6	Other

DETAILED ACTION

This action si in response to the applicant`s response, filed on 2/12/03.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-15, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Baliga or Sato.

Both Baliga and Sato teaches silicon carbide having region having an impurity concentration gradient between $10 \times 10^{22}/cm^4$ and $10 \times 10^{24}/cm^4$ in thickness direction (see face fig and abstracts in both patents with doping region with different concentration. Claims 14-16 are product-by-process claims and the way the claims are recited is simply the product of doped SiC and dopant concentration gradient in preamble does not have patentable weight, even if dopant concentration gradient is considered, claimed concentration gradient is inherently present in both Baliga and Sato because concentration gradient in thickness direction is concentration over thickness. Since impurity concentration in Baliga is ($5 \times 10^{13}/cm^3$ in abstract) and Sato (see at col. 6, lines 35-40 for $5 \times 10^{15}/cm^3$ - 1×10^{16} cm^3) is similar to disclosed impurity concentration, the claimed impurity concentration gradient in thickness

direction is inherently same in both Baliga and Sato, when thickness is constant. A product-by-process claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17(footnote). See also Fessmann, 1173 USPQ 685; In re Luck 177 USPQ523; In re Fessmann 180 USPQ 324; In re Avery , 186 USPQ 161; In re Wertheim, 191 USPQ 90; In re Marosi et al, 218 USPQ 289 and particularly In re Thorpe, 227 USPQ 964, all of which make it clear that it is patentability of the final product per se which must be determined by "product by process " claim , and not the patentability of the process, and that old and product produced by new method is not patentable as a product, whether claimed in "product-by-process" claims are not. Note that applicant has a burden of proof in such cases, as the above case law makes clear.

Applicant's arguments with respect to claims 14-16 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mulpuri whose telephone number is 703-305-5184. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

SAVITRI MULPURI
PRIMARY EXAMINER